

In the claims:

1. (previously presented) A drive device of a printing press, comprising:

at least two virtual leading axles (a; b), wherein each of said at least two virtual leading axles (a; b) is configured to preset a desired angular position ( $\Phi_1'$ ) of a drive (08) of at least one unit (01; 02; 03; 04; 06; 07) driven by a separate drive motor (M),

wherein the at least two virtual leading axles (a; b) are connected to at least one circuit (15; 20), which is configured to convert chronologically changing datum for the angular position of a leading axle position ( $\Phi$ ) into a pulse train ( $I(t)$ ;  $I_0(t)$ ) in the form of output signals ( $I(t)$ ;  $I_0(t)$ ), wherein the at least one circuit is configured to generate said output signals that are parameterized with regard to a number of pulses per rotation ( $n/2\pi$ ) and an assignment to one of the at least two virtual leading axles (a; b), wherein said pulse train includes a set of correlated pulse trains, wherein said set of correlated pulse trains are configured to indicate a direction of a movement, increase reliability, and define a zero point.

2. (previously presented) The drive device as recited in claim 1, wherein the pulse train ( $I(t)$ ;  $I_0(t)$ ) is supplied to a drive of a subassembly (19), which is independently driven by the drive (08) of the unit (01; 02; 03; 04; 06; 07) that is coupled to the at least two virtual leading axles (a; b).

3. (original) The drive device as recited in claim 1, wherein the circuit includes a number of subcircuits that are able to generate a number of pulse trains ( $I(t)$ ) in the form of output signals ( $I(t)$ ) at a number of outputs.

4. (previously presented) The drive device as recited in claim 3, wherein the signal generated by the circuit (15; 20) or subcircuit is adjustable by additional parameters ( $n/2\pi$ ,  $\tau$ ,  $I$ ,  $I_n(t)$ , "0") that relate to a shape of the output signal ( $I(t)$ ).

5. (previously presented) The drive device as recited in claim 3, wherein the circuit (15; 20) or subcircuit is embodied in the form of an emulator circuit.

6. (previously presented) The drive device as recited in claim 3, wherein the input of the circuit (15; 20) or subcircuit receives the current leading axle position ( $\Phi$ ) from a drive control unit (13) or a computing and data processing unit (11) of the printing press.

7. (original) The drive device as recited in claim 1, wherein the circuit (15; 20) is connected as a client to a network (09) that conveys the leading axle position ( $\Phi$ ) and receives its angular position at its input.

8. (original) The drive device as recited in claim 1, wherein a drive control unit (13) that presets the leading axle position ( $\Phi$ ) is provided, which has at least one circuit (15; 20).

9. (previously presented) The drive device as recited in claim 1, wherein a first and at least one second circuit (20; 15) are provided for converting the chronologically changing datum for the angular position of a leading axle position ( $\Phi$ ) into a pulse train ( $I(t)$ ;  $I_0(t)$ ) in the form of output signals ( $I(t)$ ;  $I_0(t)$ ).

10. (previously presented) The drive device as recited in claim 9, wherein a drive control unit (13; 17) that presets the leading axle position( $\Phi$ ) has a first circuit (20), which converts the chronologically changing datum of the leading axle position ( $\Phi$ ) into a first pulse train ( $I_0(t)$ ) with a fixed, definite number of pulses per rotation ( $n/2\pi$ ) of the at least two virtual leading axles (a; b).

11. (original) The drive device as recited in claim 10, wherein an output of the first circuit (20) communicates with the input of a second circuit (15), which is able to convert the first pulse train ( $I_0(t)$ ) into a new pulse-shaped output signal ( $I(t)$ ) in conjunction with parameters ( $n/2\pi$ ,  $\tau$ ,  $I$ ,  $I_n(t)$ , "0") that influence the shape.

12. (previously presented) The drive device as recited in claim 11, wherein the second circuit (15) has a number of subcircuits, which are able to generate a number of different pulse trains ( $I(t)$ ) in the form of output signals ( $I(t)$ ) at a number of outputs.

13. (previously presented) The drive device as recited in claim 11, wherein the parameters ( $n/2\pi$ ,  $\tau$ ,  $I$ ,  $I_n(t)$ , "0") of the circuit (15) or its subcircuits are adjustable.

14. (previously presented) The drive device as recited in claim 1, wherein it is possible to parameterize the output signal ( $I(t)$ ) with regard to the number of output pulses per rotation ( $n/2\pi$ ) of the at least two virtual leading axles axle (a; b).

15. (previously presented) The drive device as recited in claim 1, wherein it is possible to parameterize the circuit (15; 20) with regard to the number of pulses per rotation ( $n/2\pi$ ) of a subassembly (19) to be controlled by means of the circuit (15; 20).

16. (previously presented) The drive device as recited in claim 4, wherein it is possible to parameterize the output signal ( $I(t)$ ) with regard to a height of its amplitude ( $I$ ).

17. (previously presented) The drive device as recited in claim 1, wherein the converted pulse train ( $I(t)$ ) is present at the output of the circuit (15; 20) in the form of a digital output signal ( $I(t)$ ).

18. (previously presented) The drive device as recited in claim 1, wherein the converted pulse train ( $I(t)$ ) is present at the output of the circuit (15; 20) in the form of an analog output signal ( $I(t)$ ).

19. (previously presented) The drive device as recited in claim 1, wherein the output signal ( $I(t)$ ) at an output has a set of correlated pulse trains ( $I_A(t); I_B(t); I_C(t)$ ).

20. (previously presented) The drive device as recited in claim 4, wherein the circuit (15; 20) is detachably connected to a computing unit (11) in order to adjust the parameters ( $n/2\pi, \tau, I, I_n(t), "0"$ ).

21. (original) The drive device as recited in claim 1, wherein the leading axle position ( $\Phi$ ) is preset by a drive control unit (13; 17).

22. (previously presented) The drive device as recited in claim 10, wherein the drive control unit (13; 17) that presets the leading axle position ( $\Phi$ ) is embodied in the form of an independent master for the drives (08) that are coupled to the at least two virtual leading axles (a; b).

23. (previously presented) The drive device as recited in claim 10, wherein the drive control unit (17) that presets the leading axle position ( $\Phi$ ) is embodied as a drive control unit (17) of a folding unit (06).

24. (previously presented) A method for controlling a subassembly of a printing press, said printing press having at least two virtual leading axles (a; b), wherein each of said at least two virtual leading axles (a; b) is configured to preset a desired angular position ( $\Phi_l$ ) of a drive (08) of at least one unit (01; 02; 03; 04; 06; 07) driven by a separate drive motor (M),

wherein at least one circuit (15; 20) connected to the at least two virtual leading axles (a; b) converts the chronologically changing datum for the angular position of a leading axle position ( $\Phi$ ) into a pulse train ( $I(t)$ ;  $I_0(t)$ ) and supplies it in the form of output signals ( $I(t)$ ;  $I_0(t)$ ) to the subassembly (19) and an incremental resolution between the rotating leading axle (a; b) and an angular position transducer of a subassembly (19) to be controlled via the circuit (15; 20) or its drive motor is performed by parameterizing the output signals generated by the circuit with regard to a number of pulses per rotation ( $n/2\pi$ ) and an assignment to one of the at least two virtual leading axles (a; b), wherein said pulse train includes a set of correlated pulse trains, wherein said set of correlated pulse trains are configured to indicate a direction of a movement, increase reliability, and define a zero point.

25. (new) A drive device of a printing press, comprising:  
at least two virtual leading axles (a; b), wherein each of said at least two virtual leading axles (a; b) is configured to preset a desired angular position ( $\Phi_1'$ ) of a drive (08) of at least one unit (01; 02; 03; 04; 06; 07) driven by a separate drive motor (M),

wherein the at least two virtual leading axles (a; b) are connected to at least one circuit (15; 20), which is configured to convert chronologically changing datum for the angular position of a leading axle position ( $\Phi$ ) into a pulse train ( $I(t)$ ;  $I_0(t)$ ) in the form of output signals ( $I(t)$ ;  $I_0(t)$ ), wherein the at least one circuit is configured to generate said output signals that are be parameterized with regard to a number of pulses per rotation ( $n/2\pi$ ) and an assignment to one of the at least two virtual leading axles (a; b), wherein said pulse train includes a set of correlated pulse trains, wherein said set of correlated pulse trains are configured to indicate a direction of a movement, increase reliability, and define a zero point, and

wherein each of said pulse trains consists of a number of pulses per rotation and represents an angular position of an axle, while said correlated pulse train as a whole represent the direction of movement of the axle.

26. (new) The drive device as defined in claim 1, wherein said correlated pulse trains include a pulse train  $I_A(t)$  and its inversion, a chronologically offset pulse train  $I_B(t)$  and its inversion, and a pulse train  $I_C(t)$  identifying a zero point.